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History is past Politics and Politics present History.—*Freeman*

ELEVENTH SERIES

I

The Social Condition of Labor

BY E. R. L. GOULD, PH. D.
Resident Lecturer on Social Science and Statistics, Johns Hopkins University

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PREFACE.

It is strange that in an age when social questions challenge so largely the thoughts of men, little attention is paid to fact in comparison with dogma. We ought not to consider it a disparagement of theoretical principles to say that they have been pushed too far, the natural result being a threefold grouping of society: scholars preaching philosophical beatitudes, radical divisions caring for little else save immediate material ends, while between them lies the great conserving body, by no means unsympathetic, but very often inactive from having no clear conceptions of what ought to be done. By no means socialistic in my ways of thinking, I nevertheless feel that before prescribing ideals it behooves us first to know whether the environment is adjusted to their possible realization.

Neither dogmatists nor agitators have any love for the statistician, for the simple reason that he disturbs the dream of the one and the occupation of the other. But I believe thoroughly that it is he who can find the key to most of the social problems of labor. His methods are the surest, as he devotes himself to the diagnosis of separate complaints instead of manufacturing universal cures.

The United States Department of Labor, under the able direction of the Honorable Carroll D. Wright, may fairly claim the honor of having in its sixth and seventh annual reports presented a grouping of facts in a fuller, more scientific and more useful way than has ever been done before in relation to the social-economic position of industrial labor. As one who took so large a part in the carrying out of this work, I have attempted in the following pages to analyze the principal facts, and to compare results

with the essential features of a moderately conceived social ideal. My chief aim has been to see comparatively how an ambitious, intelligent, well-living laboring class fares in economic competition. This question is a crucial one, for if a high standard of life begets superior force, intelligence and skill, these latter can be depended upon to perpetuate themselves, and their exercise to react alike to the benefit of employer and employed.

The present paper, dealing as it does with questions of such broad international interest, has been presented to the "Académie des Sciences Morales et Politiques," and is published simultaneously in the transactions of that body, in "La Reforme Sociale," the "Jahrbücher für National-oekonomie und Statistik," the "Contemporary Review," and the Johns Hopkins University Studies. The subject-matter has reference to the allied industries of coal, iron and steel. I hope soon to be able to follow it up with a study, on similar lines, of the textile branches of manufacture. The inquiry itself being somewhat of a novelty in Europe, a rather long introduction was necessary to explain its character and objects. While its omission would not have been felt by American readers, its incorporation did not seem out of place, in order that the scope and methods of the investigation might be thoroughly understood.

JOHNS HOPKINS UNIVERSITY,
BALTIMORE, *December*, 1892.

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THE SOCIAL CONDITION OF LABOR.

For many years there have been, so far as the general public is concerned, both in Europe and America, exaggerated ideas of the industrial conditions prevailing on the two continents. In the absence of reliable statistics, interested parties have been able to tell harrowing tales alike of the plutocratic American manufacturer and the European "pauper laborer" and be believed.

Though thinking men have long been weary of exaggerated statements, and private investigators have sought to learn the truth, the field of comparative industrial statistics is so vast, as well as so difficult to exploit at first hand, that results have necessarily been few. The meagerness of exact knowledge, always recognized, was never, perhaps, more keenly felt than when in 1888 the Ways and Means Committee of the United States House of Representatives undertook the revision of the tariff. The effect of this was that Congress requested the Department of Labor, an organ of government whose functions are solely scientific, to investigate comprehensively and on a comparative basis the salient facts of industrial competition. The commission given, to quote the text, was "to ascertain at as early a date as possible, and whenever industrial changes shall make it essential, the cost of producing articles at the time dutiable in the United States, in leading countries where such articles are produced, by fully specified units of production, and under a classification showing the different elements of cost or approximate cost of such articles of production, including the wages paid in such industries per day, week, month or year, or by the piece, and hours

employed per day, and the comparative cost of living and kind of living." One need hardly remark that no other legislature has ever assigned to any agency the task of peering so deeply into the innermost recesses of industrial life.

Mr. Carroll D. Wright, the Commissioner of Labor, some years ago wrote a pamphlet upon the scientific bases of tariff legislation, in which he developed the thesis that, admitting the protective principle, a tariff, to be fair and just to all parties, must be based upon the comparative cost of production in competing countries. This idea was not foreign to the tastes of Mr. Mills and his associates on the Ways and Means Committee, and so it happily came about that the author of the plan was entrusted with its development.

As there has been much misunderstanding in relation to this inquiry of the Department of Labor, I may be pardoned for offering a few words of explanation. In the first place, it was not at all a partisan expedient. The House of Representatives, by a unanimous vote, and the Senate nearly with unanimity, asked that it be made, the majority in each branch of the legislature at that time being composed of different political parties. Neither was it animated by a sense of hostility to European industrial interests. Extravagant ideas had so long prevailed that there could be no harm in making the real truth known. Furthermore, reciprocal favors would be bestowed, since from the results each nation would learn its own industrial situation as well as the conditions under which it must compete. Thirdly, the inquiry would at least indicate whether the American tariff was laid solely in the interests of labor, and whether the manufacturer did not himself gain thereby. Lastly, and most important in the eyes of all who care less for individual advantage than for the welfare of the whole, it would demonstrate the comparative utility, purely from the economic standpoint, of laborers earning high or low wages, and maintaining different standards of life.

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ERRATA.

Lines 10, 11, 12 and 13, on page 11 of Vol. XI, No. 1 (Gould's Social Condition of Labor) should read as follows:

_____The workingman, so long told that the tariff was created for him, would be glad to learn if it were really so. The interests of economic science, industrial prosperity and social justice would all be served._____

I cannot insist too strongly upon the scientific aims and non-partisan character of the investigation. Absolutely no other motive than the desire to know the facts dominated alike those who instigated and those who carried out the work. If the European manufacturer averred that he was the victim of unjust discrimination, he ought to be only too glad of an opportunity to expose the truth. To the American claiming that he was handicapped by the payment of higher wages, there could exist no motive for concealment. The workingman, so long told that the really so. The interests of economic science, industrial really so. The interests of economic science, industrial prosperity and social justice would all be served. The character and attainments of the Commissioner of Labor and his principal associates offered a guarantee that the work would be impartially done, and the practice of the Department in so presenting information that its source cannot be recognized made sure that industrial or trade secrets would not be disclosed.

Let me remark, in passing, that a tariff based strictly upon comparative costs of production is not considered, especially by business men, an available scheme. It is evident that not only is it impossible to find a unit of comparison between articles made of the same material but different in pattern, texture and weight, but also the costs of plain units of manufacture will vary according to fluctuations in the price of labor and of commodities. This is perfectly true, and was clearly understood by all who furthered the inquiry. It was never designed to erect either a fixed or sliding scale of tariff duties on all or a part of the articles scheduled. General industrial conditions, not special trade necessities, were the subjects of consideration. The social and economic welfare of the American laborer was the object most at heart, since the inquiry sought for facts to guide the legislator in his distribution of social justice. There was never a thought of being useful to the customs service in its control of invoices. I

mention this to clear up a misconception which unfortunately gained credence on some parts of the Continent through the medium of newspapers which took absolutely no pains to verify their suspicions. Though this step militated against the success of the work, it nevertheless caused an injustice to the country concerned, since in some instances the facts could only be obtained from places which I am morally convinced did not represent the most favorable conditions. For so unfortunate an incident, misconceived patriotism and mistaken zeal are alone responsible.

In the latter part of 1888 a commission of six officials of the Department of Labor, over whom I had the honor to preside, commenced investigations in Europe. The field of operations was naturally the principal manufacturing countries,—Great Britain, France, Belgium, Germany and Switzerland, and in a lesser degree Luxembourg, Italy and Spain. Only the important industries of coal, iron, steel and glass and cotton, woolen, silk and linen textiles were included. Simple and standard units of manufacture, as for example a ton of steel rails of the same size and yards of cloths uniform in organization, texture and weight, which are made the world over, and about whose production trade secrets no longer exist, were the objects of inquiry. The greatest care was taken to secure homogeneity in the units, as otherwise a comparison of costs of production would be misleading and valueless.

As may readily be judged, it was not an easy matter to conduct the investigation, especially in Europe. American manufacturers have been so often approached by statistical agencies that they were naturally freer to respond. But in Europe, where the statistics of labor and industry have been far less developed, one could not, in the nature of things, expect a very general willingness to communicate to foreigners information of so confidential a character. In the midst of the work the McKinley tariff was imposed, a contingency which was entirely unforeseen at the

outset, aggravating the natural difficulties of the situation and becoming the root of much misunderstanding. I have already pointed out that there was absolutely no relation between the McKinley bill and our inquiry. Let me say, further, that no information whatever in regard to the textile industries was communicated from Europe before the measure became a law. The Commissioner of Labor, at the request of the Senate Finance Committee, did make a preliminary report upon the cost of production of iron and steel, but, as is well known, the tariff on the most of such articles was either left untouched or was reduced. Nevertheless the idea got abroad in some quarters that ours was a spy service in the interest of the McKinley bill.

In this connection it is a great pleasure for me to recognize the fair-mindedness of "Le Temps." M. Francis de Pressensé, as soon as the report came to his ears, addressed me a letter, stating that he would be glad to know the real objects of our mission. The salient parts of my reply were published, and the utility of such inquiries, not only to the United States, but to Europe, was commended by this enlightened journal.

It is obvious that if the results of such an investigation are to be of any use, the hearty coöperation of a sufficient number of manufacturers must be enlisted. The Department of Labor may claim that such a condition has been fairly complied with. In regard to the first group of industries, coal, iron and steel, with which the only volume now published deals, the Commissioner states that cost of production returns were received from 454 American and 164 European establishments. Budgets of cost of living were secured from 2490 workmen employed in these industries in America and 770 in Europe, while the wages of several thousand laborers, at least one-third of whom were European, were tabulated. So liberal were the responses from the two continents! Really representative facts were obtained for all important branches of these

industries, except from the American producers of steel rails, who, with one single exception, refused to state their cost of production.

There can be no caviling as to the accuracy of the facts themselves. Statements on cost of production and tabulations of workmen's wages were taken directly from the account books and pay-rolls of the different establishments. The budgets of family income and expenses were gathered with all the care that that delicate and difficult branch of statistical work demands. Without entering too much into details, one may say that in those cases where the laborers did not keep books or deal at a coöperative store, we were often accompanied to the houses by a retired postman or policeman or some other person who was well acquainted with all the families and enjoyed their confidence. The tabulation of wages from the pay-rolls of the manufacturer gave a control over the statements of the workman as to his earnings, and it will be generally recognized by all who have themselves made personal investigations of this character, that if the truth is told about earnings, at least an honest attempt will be made to speak truly of expenses. The schedules of questions were so constructed that it was not difficult to detect, especially after a little experience, any material inaccuracy.

With the understanding that the statistical bases have been broad enough in design and sufficiently thorough in execution, let us pass on to the results. These I shall present chiefly in the form of tabular statements, making only such textual observations as seem necessary to elucidate the figures.

The number of families to whom the subsequent facts relate is first given. Next follows the average size of the family, the parents being included. The American family is the smallest; the English, Belgian, and German following in the order named. Proprietorship of homes is much more common in America than in Europe. The next column, taken in conjunction with the second, discloses a

Table I.

BITUMINOUS COAL MINING.

Family Budgets.

Country.	Families.		Dwellings.		Yearly Income of Family.					Annual Family Expenditure.														Surplus.	
					Earnings of Husband.		Other Income.			Rent.		Food.		Clothing.		Books and Newspapers.		Alcoholic Drinks.		Tobacco.					
	Total Number.	Size of Family.	Families owning House.	Size of House.	Amount.	Proportion.	Amount.	Proportion.	Total Income.	Amount.	Proportion.	Amount.	Proportion.	Amount.	Proportion.	Amount.	Proportion.	Amount.	Proportion.	Amount.	Proportion.	Other Expenses.	Total Expenditure.	Amount.	Per cent.
United States	508	5.3	134	3.9	$426 73	77.5	$123 57	22.5	$550 30	$61 19	11.7	$237 44	45.2	$112 10	21.4	$5 30	1.0	$18 09	5.2	$9 30	1.8	$81 29	$524 71	$25 59	4.6
Great Britain.	166	5.4	1	3.8	376 72	76.1	118 53	23.9	495 25	47 50	10.4	246 35	53.9	66 30	14.5	4 07	0.9	22 65	7.3	10 79	2.4	59 66	457 32	37 93	7.7
Belgium	10	6.0	1	3.3	291 50	68.3	135 05	31.7	426 55	18 96	5.1	218 26	58.8	62 83	16.9	1 38	0.4	26 50	8.5	5 39	1.4	38 04	371 36	55 19	12.9
Germany.....	18	7.1	....	3.3	257 51	65.8	133 98	34.2	391 49	38 64	10.5	196 60	52.4	65 72	17.8	2 77	0.8	11 48	4.1	3 86	1.0	53 32	369 39	22 10	5.6

curious fact. The size of the habitation is in inverse proportion to the number in the family.

Not only are the total earnings of the family highest in America, but the contribution of the husband thereto is both absolutely and relatively larger than elsewhere. There is not, however, so great a difference in the proportions, the Englishman being nearly equal, the Belgian 9 per cent. and the German 12 per cent. less.

A large share of the American's outgo is for rent. Here again both absolutely and relatively he occupies first place. For food his total expense is not quite so great as for his British confrère, but passes the Belgian and the German, who have much larger families. But he is able to nourish his family better on a far smaller proportion of his total expenses, viz., 45 per cent., as against 59 per cent. and 52 per cent. respectively.

As regards clothing, Great Britain presents the most favorable conditions. If we assume that reasonable necessities were fully complied with, but no extravagances indulged, then the American is most poorly off. He must spend 40 per cent. more to clothe a family of two fewer individuals than the German, for example. It must be remembered that there is not the same disparity in the price of clothing used by the workingman in the two continents as there is in that worn by the richer classes. The reason is that the former is largely of home manufacture and made up by the sweated denizens of New York's miserable tenements. The clothes for the rich man are still generally imported and made into garments by trade-union labor.

The American coal-laborer spends more on books and newspapers than his European fellow-workers, and less for alcoholic beverages than any except the German. In both of these respects is he in particularly marked contrast with the Belgian. Finally, in comparing expenses with revenue, we find the American less provident than any of the others. He puts aside 4½ per cent. of his income to the German 5½ per cent., the Englishman 7½ per cent., and the Belgian 13 per cent.

The foregoing table refers to all classes of workmen in the coal industry. It may happen that there is a larger proportion of what may be called skilled laborers, *i. e.* foremen, miners, enginemen, masons, etc., in some cases than in others. This is actually true, the proportion of such labor being 80 per cent. amongst the American families represented, 50 per cent. the English, 66 per cent. the German and 90 per cent. the Belgian. Some allowance must be made for this fact, though the influence is not so great as might appear at first sight.

The general truth of the above statistics is strikingly verified by the following table, which displays the average cost of living of five miners in each country. The selections were made from those earning the highest wages in their respective countries. No very important divergence from results previously mentioned is manifest.

A comparison of the earnings of coal-miners in America by nationalities offers some curious and, perhaps to many, unexpected results. The average income of 114 miners of American birth was $381.14 per annum. Forty-four British miners at home earned on the average $402.78 annually, while 183 miners of British origin in the United States received $410.46 each. The figures for 11 German miners are $265.03 at home, and for 50 in the United States $444.83. The American coal-miner on his own soil is clearly at a disadvantage with British and German fellow-workmen, and even gets less than the British in their own island. To the German the change is especially marked. The figures, be it remembered, are for the heads of families, and do not in all, perhaps in the majority of cases, represent the total income of the family.

In addition to the foregoing facts, if we consider the further questions of hours of daily labor, sliding-scale payments and stability of organization, one must feel convinced that the British miner at home is the best off. Observation as well as statistics have led me to this conclusion.

TABLE II.

THE COAL MINING INDUSTRY.

AVERAGE OF BUDGETS OF GROUPS COMPOSED OF FIVE MINERS EACH.

NATIONALITIES.	Average Size of Family.	Size of House.	YEARLY INCOME OF FAMILY.							ANNUAL FAMILY EXPENDITURE.												SURPLUS.	
			Earnings of Husband.		Earnings of Children.		Other Income.		Total Income.	Rent.		Food.		Books and Newspapers.		Alcoholic Drinks.		Tobacco.		Other Expenses.	Total Expenditure.		
			Amount.	Proportion.	Amount.	Proportion.	Amount.	Proportion.		Amount.	Proportion.	Amount.	Proportion.	Amount.	Proportion.	Amount.	Proportion.	Amount.	Proportion.			Amount.	Proportion.
Average of Five American Miners.	3.8	3.2	$513 76	100.	.....	....	.....	...	$513 76	$54 00	11.1	$202 38	41.5	$4 40	0.9	$6 00	1.2	$17 60	3.6	$203 84	$488 22	$25 54	5.0
Average of Five English Miners.	5.8	3.8	493 65	100.	.....	....	.....	....	493 65	49 14	11.1	248 08	55.9	2 40	0.5	18 68	4.2	8 42	1.9	117 23	443 95	49 70	10.1
Average of Five Belgian Miners.	5.4	3.0	334 49	100.	.....	....	.....	....	334 49	16 45	5.0	189 99	58.2	0 20	0.06	23 61	7.2	4 67	1.4	91 30	326 22	8 27	2.5
Average of Five German Miners.	8.2	3.6	288 55	81.7	.....	....	$66 93	18.9	355 48	36 37	11.3	168 38	52.2	3 00	0.9	6 38	1.9	4 04	1.3	104 19	322 36	33 12	9.3

TABLE III.

BAR IRON.

FAMILY BUDGETS.

COUNTRY.	Families.		Dwellings.		YEARLY INCOME OF FAMILY					ANNUAL FAMILY EXPENDITURE.													SURPLUS.	
					Earnings of Husband.		Other Income.			Rent.		Food.		Clothing.		Books and Newspapers.		Alcoholic Drinks.		Tobacco.					
	Total Number.	Size of Family.	Families owning House.	Size of House.	Amount.	Proportion.	Amount.	Proportion.	Total Income.	Amount.	Proportion.	Amount.	Proportion.	Amount.	Proportion.	Amount.	Proportion.	Amount.	Proportion.	Amount.	Proportion.	Other Expenses.	Total Expenditure.	Amount.	Proportion.
United States	623	4.8	112	5	$698 49	89.1	$85 62	10.9	$784 11	$107 33	16.0	$281 21	41.9	$123 88	18.4	$8 25	1.2	$25 10	3.7	$13 17	2.0	$112 56	$671 50	$112 61	14.3
Great Britain	114	4.8	....	4.2	438 99	84.4	81 00	15.6	519 99	53 27	11.1	226 08	47.0	95 76	15.8	5 84	1.2	20 77	4.4	12 73	2.6	66 22	480 67	39 32	7.6
France	40	5.3	....	4	331 62	71 4	133 12	28.6	464 74	30 98	7.7	195 84	48.8	89 11	22.2	2 95	0.7	46 73	11.7	5 26	1.3	30 22	401 09	63 65	13.7
Belgium	75	5.5	5	3.5	213 51	59.4	145 86	40.6	359 37	34 23	9.7	165 00	46.7	83 45	23.6	3 37	1.0	18 57	5.2	5 73	1.6	43 10	353 45	5 92	1.6
Germany	22	6.0	1	1.9	243 92	86.4	38 28	13.6	282 20	17 49	6.2	147 56	51.2	54 95	19.8	2 44	0.8	14 78	5.1	4 05	1.4	49 19	290 46	.....	....

Turning now to the manufacture of bar-iron, we have in Table III statistics on similar lines to those in Table I.

Here, too, the average family is smaller in the United States than in any of the continental countries, and it is also better housed. Astonishing as it may seem, the size of the habitation varies again in an inverse ratio to the size of the family. Great Britain is not far behind the United States, while France, Belgium and Germany follow in the order named. The latter has the poorest accommodation for the largest family. The husband in the United States earned $\frac{9}{10}$ths of the total income, and thus fulfilled that highest of social requirements of being able to support the family by his unaided effort. British heads of families are nearly in the same condition, but in all the other countries such a contingency seems impossible for the average workman in the bar-iron industry. In Belgium, for example, only $\frac{3}{5}$ths came from the husband's wages. The rent column offers no important deviation. But it must be acknowledged that the American was obliged to spend far too large a proportion here. The American family appears to be better nourished than the others on a smaller relative expenditure. The amounts spent under this head in the different countries, taken together with the size of the families, and a table of prices of food which follows later, offer serious ground for reflection, especially to Continental statesmen.

The figures for clothing seem to show an advantage for the British iron-worker, though the American has not spent a very much larger proportion. The American again leads the list in expenditure for books and newspapers. He spends more for drink in this case than any except the Frenchman, though proportionally his outgo is the smallest of all,—3.7 per cent. to 4.4 per cent., to 5.1 per cent., to 5.2 per cent. and 11.7 per cent. respectively. Remark, in passing, an exceedingly unfortunate showing in the three continental countries. The Frenchman spent 4 per cent. more for liquor than for house-rent, while in

the case of Belgians and Germans the proportion of expenditure was abnormally high.

Naturally with a so much larger income the per cent. of earnings saved is greater in the case of the American. Next comes the Frenchman, then the Englishman and the Belgian. In Germany a majority of families were unable to make ends meet. I am far from saying that this represents the average condition in that country. The locality whence these budgets were gathered is not industrially the best placed. More representative districts would have been chosen had not shortsighted views intervened to prevent the collection of data.

The proportion of skilled to ordinary labor amongst the families represented was highest in Germany, 69 per cent., next in France 67 per cent., next in Belgium 60 per cent., then in America 57 per cent., and finally Great Britain with 51 per cent. A study of the figures cannot scientifically be made without considering this fact, for naturally the higher the proportion of skilled labor the more favorable should the economic situation appear. However, the range of variation is not sufficient to vitiate the results, which are only confirmed by the following table, where homogeneity is secured. Groups of five puddlers belonging to the different countries have been chosen quite at random, and their incomes and expenses averaged.

The general conditions amongst steel-workers appear to be, broadly speaking, similar to those prevailing in the iron industry, only the American has not as great an advantage in the matter of earnings as before. This is probably due to the larger use of mechanical processes, which enables the manufacturer in the United States to dispense in a greater degree with skilled labor.

TABLE IV.

BAR IRON.

AVERAGE BUDGETS OF GROUPS COMPOSED OF FIVE PUDDLERS EACH.

NATIONALITIES.	Size of Family.	Size of House.	YEARLY INCOME OF FAMILY.							ANNUAL FAMILY EXPENDITURE.												SURPLUS.	
			Earnings of Husband.		Earnings of Children.		Other Receipts.		Total Receipts.	Rent.		Food.		Books and Newspapers.		Alcoholic Drinks.		Tobacco.		Other Expenses.	Total Expenses.		
			Amount.	Proportion.	Amount.	Proportion.	Amount.	Proportion.		Amount.	Proportion.	Amount.	Proportion.	Amount.	Proportion.	Amount.	Proportion.	Amount.	Proportion.			Amount.	Proportion.
Average of five American Puddlers	5.4	4.8	$845 95	91.4	$80 00	8.6	.....	....	$925 95	$98 40	13.1	$282.14	37.6	$11 00	1.5	$14 00	1.9	$16 75	2.2	$327 63	$749 94	$176 01	19.0
Average of five English Puddlers...	4.4	3.8	423 48	87.9	58 40	12.1	.....	....	481 88	58 91	13.6	224.31	51.7	3 28	0.8	*5 84	1.3	6 23	1.4	135 61	434 18	47 70	9.9
Average of five French Puddlers...	4.2	4.0	376 04	93.2	13 90	3.5	$13 51	3.3	403 45	26 63	7.7	154 04	44.5	1 90	0.5	59 83	17.3	4 44	1.3	99 11	345 95	57 50	14.2
Average of five German Puddlers..	6.6	2.0	250 61	90.0	27 98	10.0	.....	....	278 59	20 93	7.6	131 08	47.6	1 40	0.5	13 97	5.1	2 90	1.1	105 29	275 57	3 02	1.1
Average of five Belgian Puddlers..	5.6	3.6	308 53	82.9	63 69	17.1	.....	....	372 22	34 77	9.4	190 92	51.9	93	0.3	16 98	4.6	3 02	0.8	121 39	368 01	4 21	1.1

* Two of these Puddlers are total abstainers.

TABLE V.

STEEL MANUFACTURING.

FAMILY BUDGETS.

COUNTRY.	Families.		Dwellings.		YEARLY INCOME OF FAMILY.					ANNUAL FAMILY EXPENDITURE.													SURPLUS.	
					Earnings of Husband.		Other Income.			Rent.		Food.		Clothing.		Books and Newspapers.		Alcoholic Drinks.		Tobacco.					
	Total Number.	Size of Family.	Families owning House.	Size of House.	Amount.	Proportion.	Amount.	Proportion.	Total Income.	Amount.	Proportion.	Amount.	Proportion.	Amount.	Proportion.	Amount.	Proportion.	Amount.	Proportion.	Amount.	Proportion.	Other Expenses.	Total Expenditure.	Amount.	Proportion.
United States.	183	4.7	28	4.6	$578 52	87.2	$85 04	12.8	$663 56	$86 44	15.3	$254 18	45 1	$110 09	19.5	$6 66	1.2	$26 55	4.7	$10 48	1.9	$69 10	$563 50	$100 06	15.1
Great Britain.	166	5.3	10	4.2	487 34	82.7	101 79	17.3	589 13	48 31	9.1	274 00	51.6	96 72	18.2	6 04	1.1	33 84	6 4	13 20	2.5	58 71	530 82	58 31	9.9
Germany.....	35	4.9	....	2.0	232 04	92.7	18 09	7.3	250 13	9 70	3.4	128 29	50.9	47 78	18.9	1 93	0.8	10 44	4.1	4 28	1.7	49 77	252 19	.....	....

The proportion of skilled labor in the total from whom the above budgets were obtained is almost uniform in the three countries, viz., 40 per cent. in the United States and Great Britain and 43 per cent. in Germany.

Having considered the social-economic position of workers in the coal, iron and steel industries in several countries, let us now by proper combination ascertain the average conditions prevailing on the two continents. Table VI is an attempt to do this.

Broadly speaking, coal-mining presents the smallest and the manufacture of iron the greatest contrasts. Added to this table is one interesting element, viz., the proportion of families who subscribed to newspapers and bought books, and who drank liquor or smoked tobacco. For books and newspapers the proportion in America except for workers in coal mines is uniformly the highest, but as regards the use of liquor the lowest, save in the case of blast-furnace employés. A smaller number of families in Europe used tobacco.

Forsaking for the moment the rôle of the statistician, and taking up that of the social philosopher, let us examine closely how nearly in these returns a moderately conceived social standard has been complied with. The fundamental condition of such a standard is that the earnings of the husband alone should be sufficient to support the family. The wife ought never to be called away from the household if she have children. The desertion by mothers of the home for the factory is, I am convinced, a fundamental factor in modern social discontent. How can the needs of the husband be met and a proper moral instruction be given to the children under such circumstances? The public school can educate intellectually, but only indirectly morally. In the home the character is formed, in the home the citizen is made, and there can be no proper homes whence mothers have been withdrawn. One may well wonder what this wholesale employment of women in industry will lead to in the course of a generation or so. It is difficult to see

TABLE VI.

GENERAL TABLE OF FAMILY BUDGETS BY INDUSTRIES.

Country and Industry.	Families.		Dwellings.			Families entirely maintained by Earnings of Husband.		Yearly Income of Family.			Annual Family Expenditure.																Surplus.	
	Total Number.	Average Number of Persons in Family.	Owning their Homes.	Giving Information concerning size of Dwelling.	Average number of rooms per Family.	Number.	Proportion.	Total Earnings of Family.	Earnings of Husband.	Proportion of Earnings of Husband to Total Earnings	Rent.		Food.		Clothing.		Books and Newspapers.		Alcoholic Drinks.		Tobacco.			Total Expenditure.		
											Amount.	Proportion.	Amount.	Proportion.	Amount.	Proportion.	Proportion Buying.	Amount.	Proportion.	Proportion Using.	Amount.	Proportion.	Proportion Using.	Amount.	Proportion.		Amount.	Proportion.
1. *Coal Mining.*																												
United States...	508	5.3	134	335	3.9	294	57.9	$559 30	$426 73	77.5	$61 19	11.7	$237 44	45.3	$112 10	21.4	80.3	$5 30	1.0	60.8	$18 09	3.4	85.8	$9 30	1.8	$524 71	$25 59	4.7
Europe.....	194	5.6	2	189	3.8	97	50.0	482 08	361 26	74.9	45 47	10.2	240 01	54.0	66 04	14.8	92.3	3 89	0.9	83.5	21 96	4.9	89.7	9 85	2.2	444 73	37 35	7.7
2. *Manufacture of Pig-Iron.*																												
United States..	762	5.0	189	533	3.9	442	58.0	591 61	513 52	86.8	65 02	11.9	235 66	43.2	111 97	20.5	79.3	5.70	1.1	63.9	17 61	3.2	87.3	11 46	1.9	546 23	45 38	7.7
Europe.....	76	5.0	....	59	4.0	36	47.4	444 94	350 11	78.7	38 35	9.0	214 65	50.4	85 81	20.1	78.9	5.01	1.2	60.5	20 00	4.7	56.6	14 11	3.3	426 22	18 72	4.2
3. *Manufacture of Bar-Iron.*																												
United States...	623	4.8	112	441	5.0	432	69.3	784 11	698 49	89.1	107 33	16.0	281 21	41.9	123 88	18.4	87.8	8.25	1.2	47.0	25 10	3.7	79.4	13 17	2.0	671 50	112 61	16.9
Europe.....	251	5.2	6	196	3.7	125	49.8	442 33	337 41	76.3	41 36	10.0	196 13	47.5	87 16	21.1	65.3	4.83	1.2	71.7	25 26	6.1	78.9	8 26	2.0	413 09	29 24	6.6
4. *Manufacture of Steel.*																												
United States...	183	4.7	28	151	4.6	117	63.9	663 56	578 52	87.2	86 44	15.3	254 18	45.1	110 09	19.5	80.3	6 66	1.2	38.2	26 55	4.7	76.5	10 48	1.9	563 50	100 06	15.1
Europe.....	201	5.2	10	130	3.6	93	46.3	530 10	442 89	83.5	41 23	8.5	249 13	51.7	88 22	18.3	79.1	5 73	1.2	53.2	26 19	5.4	51.2	10 35	2.2	482 30	47 80	9.0

NOTE.—"Other Expenses," though not set forth in a special column, are included in the total.

how young girls who never had any domestic training, and early went to work in factories, are going to make *either acceptable housewives or good mothers.* It is not very reassuring to note that in the United States alone, and there only in two cases, viz., bar-iron and steel manufacture, was it possible for the husband unaided to support his family. In these instances, too, the margins are so small as to cause one to refrain from congratulation. If we further inquire how often the husband actually did support his family without help, we find the highest proportion in any industry to be 69 per cent.

Any one who has had an opportunity to learn the real life of European laborers understands how much more thoroughly is there developed the sentiment of family solidarity. The children remain longer with their parents than in America and contribute more to the general support. *Not only are the absolute earnings of the husband smaller in Europe than in America, but the percentage of his contribution to the total income is also less.* A failure to realize this fact is at the bottom of much misconception in the United States regarding the true condition of the European laborer. The family, not the individual, is the unit of society. Hence it is quite false to say, as political "pauper labor" conjurors are so fond of doing, that low wages to the husband must necessarily mean a correspondingly low standard of life to the family. The otherwise certain consequences of low earnings are in practice largely mitigated by the relatively higher economic contributions from other members of the family. While such a practice involves a regrettable loss of social opportunities, it permits the maintenance of the family on a higher plane than would first appear to those who judge merely from current rates of wages and take no account of national customs.

The figures before us thoroughly justify the point of view I have been endeavoring to present. The average annual wages of workers in coal mines were 18 per cent. higher in America than in Europe, but the total earnings

of the family were but 13 per cent. more. So for the manufacture of pig-iron, bar-iron and steel the respective figures are 46 per cent. for the husband and 33 per cent. for the family, 107 per cent. for the husband and 77 per cent. for the family, 31 per cent. for the husband and 25 per cent. for the family higher in the New World. Such are the average conditions prevailing in Europe and America, but if we seek for the facts in relation to each separate industry under consideration we find the practice to be everywhere the same. For coal-workers the variations in earnings are for the individual 13 per cent. and for the family 11 per cent. more in the United States than in Great Britain, 41 per cent. more for the individual and but 29 per cent. more for the family than in Belgium, 66 per cent. more for the individual and 46 per cent. more for the family than in Germany. The manufacture of iron presents even more striking contrasts. The American individual workman gains 59 per cent. and his family 51 per cent. more than the British, 111 per cent. and 69 per cent. respectively greater than the French, 227 per cent. and 118 per cent. respectively more than the Belgian and 186 per cent. and 178 per cent. respectively higher than the German. The steel industry, so far as the returns we are considering go, presents the only exception to what I believe is a universal law. But this is unimportant, and easily accounted for by the *caveat* I have previously interposed as to the not quite representative conditions prevailing in the locality whence the statistics for German steel-workers were derived. The individual workman in America is, economically speaking, 19 per cent. better off while his family is 13 per cent. better off than in Great Britain; the individual 149 per cent. and the family 165 per cent. better off than in Germany.

From a comparative point of view the facts we have just been considering are of very great interest. But in their social aspect they represent at best a negative virtue. The greater collective effort which it is necessary to put forth in Europe to secure a good standard of life must be at the

expense, always intellectual, often physical, and sometimes also moral, of one or more of the individuals. Perhaps it is a rude awakening to many to learn that the true economic basis of a proper social existence is so generally wanting. Only in the United States, and there but for two of the six great divisions of coal-mining and iron and steel manufacturing, does it obtain. Let there be no mistake about this matter. I do not maintain that there are no families within these industries which are not kept solely by the economic efforts of the husband. To be sure, there are thousands of such, and they may be found in all countries. The lesson to be learned from the figures is that when all occupations, skilled and unskilled, are grouped together within each specific industry, the average conditions fall far short of the ideal.

A second element in a just social standard for an industrial laborer is food. We see from the double column wherein the figures are portrayed that in practically every instance the largest absolute but the smallest relative sum falls to the American. Does this mean that the family of the workingman in America is better nourished than abroad? I believe it does, and principally for two reasons. The family in the United States is smaller, and therefore with the largest sum of money spent the amount *per capita* is considerably greater. But does higher expenditure mean more food? We may answer affirmatively, because a greater quantity of the principal articles in a workingman's menu can be had for an equal amount of money in the New World. The Department was careful to collect information concerning the price of food concurrently with the budgets. From data furnished by the wives of workingmen, which authority should be accepted as indisputable, we are able to make a statement of comparative prices.

The price of bread does not show much difference except in France and Germany. But the kind and quality of flour used is by no means the same, so that to obtain an equal amount of nourishment a much larger sum must be

spent in the Continental countries than in Great Britain and the United States. The average prices of the meats which find their way to the workingman's table, without reference to kind, figure out 23 per cent. more in Germany, 47 per cent. more in Belgium, 50 per cent. more in Great Britain and 52 per cent. more in France than in the United States. Potatoes cost 3 per cent. more in Great Britain, 19 per cent. more in France than in the United States, but 30 per cent. and 50 per cent. respectively less in Belgium and Germany. Butter is 4 per cent. dearer in Great Britain, 9 per cent. dearer in Belgium, 22 per cent. dearer in Germany and 35 per cent. dearer in France than in the United States. Sugar in England is only half the price it was in the United States before 1890, but the same article is 19 per cent. more in Germany, 51 per cent. more in Belgium and 84 per cent. more in France. Coffee costs 13 per cent. more in Belgium, 19 per cent. more in Germany, 40 per cent. more in Great Britain and 67 per cent. more in France than in the United States. Lard and eggs form no exception to the general rule. It is impossible to escape the conclusion that with the prevailing prices of provisions so preponderatingly in favor of the American laborer, and seeing that his family is smaller, his larger absolute expenditure means unquestionably that he and his kind are better nourished. The encouraging part of it all is that the family is able thus to maintain itself at a smaller relative sacrifice. I am glad to say that my own experience accords perfectly with this statistical demonstration.

Right here I cannot refrain from adding further testimony as the result of personal observation. The statement so often circulated in America that meat is the rarest of luxuries to the European industrial laborer is an absurd falsehood. The casual worker has, we all know, a hard enough time of it everywhere, but it is not from his exigencies that we must fix a general standard. I am very sure that the American nourishes himself and his family better, at a smaller relative cost than any European. But

I am no less positive that those who suppose industrial laborers abroad to subsist generally on pauper's fare are most thoroughly mistaken.

The columns in which expenditure for alcoholic drinks are exposed present facts for serious reflection. National pride will no doubt be flattered to learn that American families spend the smallest sums for this purpose. Not only so, but there must also be a smaller *per capita* consumption, since the prices of alcoholic drinks are higher in the New World. Still this is only a partial satisfaction. If we conceive that the American spends too much, the European, to whom the struggle for existence is keener, wastes more. It is a matter of grave public concern to learn that every year in that part of the labor world where the hardiest workers are found, *the publican receives three-fifths as much as the landlord.* In France and Belgium, I am sorry to say, the quota is higher still.

I have noticed in the course of personal investigations a curious relation between expenditures for rent and alcoholic drinks. The economies which are necessary to indulge the appetite for spirits are almost invariably practised on the house accommodation. The figures in all the tables presented generally corroborate this point of view. Who does not wish that the European laborer would flee the gin-cup, and with the resulting savings *add two more rooms* to his home, as he could then do?

No doubt I should be held guilty by a certain class of economists if I passed by in silence the columns which show the comparative family surplus. Without depreciating in the least the virtue of saving, one cannot but feel that it has been elevated into an importance far beyond its due. Not only is it inapplicable to all conditions, but when offered as a panacea for every social ill it is very apt to nauseate. How can a workingman, with a large family and restricted income, the creature of commercial vicissitudes and fluctuations of trade, create a fund large enough upon which to draw in times of emergency? We have seen

that in the average instance he cannot alone give support. So if a surplus is to be built up it must be at the expense of some of the children. The savings shown in the various tables are quite respectable. Provided they could go on growing from year to year, they would constitute an ample insurance fund against want. But experience shows that periods of strikes, shut-downs, illness or misfortune soon dissipate the little pile.

We must never consider wages apart from thrift and a standard of living. Where economic gains are small, savings mean a relatively low plane of social existence. A parsimonious people are never progressive, neither are they, as a rule, industrially efficient. It is the man with many wants—not luxurious fancies, but real legitimate wants—who works hard to satisfy his aspirations, and he it is who is worth hiring. Let economists still teach the utility, even the necessity, of saving, but let the sociologist as firmly insist that so far to practise economy as to prevent in this 19th century a corresponding advance in civilization of the working with the other classes is morally inequitable, and industrially bad policy. I am not sorry that the American does not save more. Neither am I sure but that if many working-class communities I have visited on the Continent were socially more ambitious there would not be less danger from radical theories. One of the most intelligent manufacturers I ever met told me a few years ago he would be only too glad to pay higher wages to his work-people provided they would spend the excess legitimately and not hoard it. He knew that in the end he should gain thereby, since the ministering to new wants only begets others. He had tried over and over again to induce the best of his weavers to take three looms instead of two as in their fathers' time, but without success. A few years later I met this same gentleman again. In the meantime the foreman of the weaving department had died and a new one been appointed on the express condition that he would gradually insist on three looms per weaver in every case where possible. The result did not belie my

friend's expectations. Both he and his work-people had profited by the change.

So far we have dealt with families as one finds them without reference to the number or ages of the children or any dependent members. Let us now seek a more scientific unit of comparison. We can do this by establishing what the Commissioner of Labor has been pleased to call the "normal family." Disregarding those with more than five children or with children older than fifteen years, or having dependent or other persons in the house, we get a number of similar units rather than groups of individuals. Table VII presents the salient facts for this class of families, and in its almost unvarying uniformity with the preceding tables gives striking confirmation to the accuracy of their results.

Table VII.

NORMAL FAMILIES.

Recapitulation of Family Budgets by Industries.

Country and Industry.	Families.		Total Annual Income.	Annual Expenditure.								Surplus.	
				Rent.		Food.		Clothing.		Other Expenses.	Total Annual Expenditure.		
	Number.	Size of Family.		Amount.	Per Cent.	Amount.	Per Cent.	Amount.	Per Cent.			Amount.	Per Cent.
1. *Coal Mining*													
United States	153	4	$446 10	$54 42	12.5	$181 04	41.7	$76 24	17.5	$122 67	$434 37	$11 73	2.6
Europe.....	85	4.7	381 56	43 89	12.1	190 11	52.5	49 11	13.5	79 01	362 12	19 44	5.1
2. *Pig Iron.*													
United States	291	4	513 79	63 91	13.0	202 47	41.3	86 80	17.7	135 52	490 70	23 09	4.5
Europe.....	49	4.2	382 49	37 39	10.1	184 53	49.7	64 45	17.4	84 64	371 01	11 48	3.0
3. *Bar Iron.*													
United States	286	3.8	625 28	96 72	16.9	238 11	41.6	83 96	14.6	153 55	572 34	52 94	8.5
Europe.....	111	4.2	370 72	41 57	11.5	167 11	46.2	63 07	17.4	49 68	361 43	9 29	2.5
4. *Steel Manufacture.*													
United States	85	4	555 50	80 05	16.3	219 87	44.7	75 06	15.3	116 74	491 72	63 78	11.5
Europe.....	82	4.4	475 20	45 64	10.2	234 91	52.6	72 03	15.7	93 52	446 30	28 92	6.1

The normal family is composed of the two parents and from one to five children less than 14 years old.

Hitherto we have been considering standards of living for coal, iron and steel workers in different countries. To a certain extent nationality has also been involved. The figures for the United States do not refer to Americans alone, since, as every one knows, a large proportion of the laborers are immigrants from the Old World. It is quite fair, I think, to call the standard of life practised in the United States the American, since the native-born workman created it, and fixed the price of his labor at a point where he could live up to it. But we must not for a moment suppose that he alone now-a-days maintains it. In this he is equaled and sometimes surpassed by the best class of immigrants who find work in mining and metallurgy, viz., the British and Germans. Other nationalities have not as yet come up to the mark. Table VIII, which contains the necessary details to verify the above remarks, is, to my mind, the most interesting of all.

There are facts herein presented which furnish a severe blow to Chauvinism. The average workman in the allied industries of American birth earns less than the Briton or the German, though he is ahead of other nationalities. In the relative size of his contribution to the family support, he only gives place to the German, whose habits in this respect have undergone a marked change since his transplanting in the New World. The proportion of cases in which the husband actually supported the family are fewer, the total earnings of the family are less, the house accommodation is slightly inferior, a smaller *per capita* expenditure appears for food and clothing for the native American than for the Americanized Briton and German. In other words, in all important respects, except the consumption of alcoholic drinks, these latter seem to be living on a higher level. As regards the other nationalities, the American conserves his leadership, though the expatriated Frenchman is not far behind.

This revelation will surprise many, yet if the statistics before us mean anything at all they teach the lessons we

TABLE VIII.

General Table of Family Budgets for the Coal, Iron and Steel Industries, Classified by Nationalities.

Nationalities.	Families.		Dwellings.			Families entirely maintained by Earnings of Husband.		Yearly Income of Family.			Annual Family Expenditure.																		Total Expenditure.	Surplus.	
											Rent.		Food.		Clothing.		Books and Newspapers.			Alcoholic Drinks.			Tobacco.							
	Total Number.	Average Number of Persons in Family	Owning their Homes.	Giving Information concerning size of Dwelling.	Average Number of Rooms per Family.	Number.	Proportion.	Total Earnings of Family.	Earnings of Husband.	Proportion of Earnings of Husband to Total Earnings.	Amount.	Proportion.	Amount.	Proportion.	Amount.	Proportion.	Proportion Buying.	Amount.	Proportion.	Proportion Using.	Amount.	Proportion.	Proportion Using.	Amount.	Proportion.					Amount.	Proportion.
Americans	1294	4.8	236	959	3.9	834	63.7	$583 68	$520 43	89 2	$71 43	13.7	$220 57	42.2	$106 27	20.4	78.8	$5 90	1.1	50.7	$14 96	2.9	83.8	$12 12	2.3	$522 29	$61 89	10.5
British in Gt. Britain*	515	5 1	11	435	4.0	370	51.4	522 68	423 79	81.2	47 61	9.9	246 43	51.33	80 20	16.7	92.0	5 15	1.07	68.2	24 48	5.09	65.3	12 30	2.6	480 07	42 01	8.1
" in United States	796	5.4	178	569	4.6	546	68.6	692 01	556 74	80.4	79 37	12.7	283 30	45.15	131 92	21.0	82.3	6 96	1.1	53.3	22 80	3.6	84.0	10 35	1.7	627 53	64 08	9.3
French in France	22	5.0	....	8	4.0	6	27.3	432 18	307 75	71.2	29 65	7.8	199 06	52.4	71 03	18.7	31.8	1 91	0.7	100.	49 77	13.09	90.9	4 83	1.3	380 16	52 02	12.0
" in United States	24	4.8	5	19	3.7	16	66.6	563 82	463 77	82.3	68 89	12.9	232 02	46.7	94 73	19.1	70.8	4 55	0.9	66.7	29 82	6.0	91.9	8 28	1.7	496 93	66 89	11.7
Germans in Germany	66	6.3	18	52	2.8	37	40.9	345 68	253 51	73.5	29 60	8.6	171 64	49.9	62 32	18.1	81.8	2 70	0.8	93.9	11 30	3.3	89.3	4 15	1.2	344 11	92	0.3
" in United States	276	5.0	106	158	4.0	202	73.2	635 30	569 57	89.7	83 51	15.4	246 62	45.5	114 52	21.1	85.5	5 76	1.06	60.1	23 24	4.8	84.8	9 24	1.7	542 52	92 78	14.6
Belgians in Belgium	118	5.7	7	82	3.6	44	37.3	389 36	241 06	62.0	32 46	8.8	175 65	47.6	85 13	23.1	26.4	2 96	0.8	70.3	24 49	6.1	83.9	5 75	1.6	369 28	19 98	5.1
Other nationalities in United States	83	5.2	15	60	3.6	41	49.4	513 79	451 71	87.9	65 18	14.8	204 03	46.5	83 48	19.0	55.4	4 82	1.1	74.7	33 76	7.7	89.2	6 37	1.5	439 31	74 48	14.5
Average in Europe	770	5 3	31	608	3.7	574	48.6	470 96	368 30	78.2	41 76	9.5	222 52	50.8	80 25	18.4	78.1	4 65	1.06	69.7	23 17	5.3	72.5	9 47	2.2	437 83	33 12	7.0
" in United States	2490	5.0	540	1733	4.1	1581	62.3	622 14	534 53	86.0	74 58	13.7	243 65	43.8	113 97	20.5	71.7	6 21	1.1	53.4	19 60	3.2	84.3	10 98	1.9	555 81	66 33	10.6

* The English, Scotch, Welsh and Irish are here included.

Note.—"Other Expenses," though not set forth in a special column, are included in the total.

have outlined. In analyzing them closely one can only find two factors which may have had an influence in determining the result. The first is that amongst the budgets included in the returns, those for the laborers employed in making merchant iron and steel, where the highest wages are paid, present a slight proportion in favor of workmen of foreign birth, viz., 422 to 384. This is so little that we may neglect it. More important is the second, which shows that the proportion of budgets drawn from the Southern States, where social-economic conditions are probably not quite so favorable, is much larger for native than for foreign-born workingmen, or 403 to 46. One can hardly say that the foreigners having outnumbered the natives in the States of New York, Pennsylvania, Ohio and Illinois, where the highest wages are generally supposed to be paid, in the ratio of 1135 to 802, matters much, because a portion of the majority is composed of Bohemians, Hungarians, Italians and Poles, whose earnings and expenses fall far short of the American's. Personally it does not seem to me that there is sufficient in all of the disturbing factors to cast doubt upon the substantially representative character of the figures. Neither do I see any ground for regret. May not a well-to-do citizen generously applaud the enhanced prosperity of his neighbor?

But there is one consideration which we must not overlook. The American may not always equal the naturalized European in physical power, but he greatly surpasses him in nerve force. Consequently we most often find him following those occupations where ingenuity, finesse and skill count for more than the exercise of patience or strength. It is a fact of common experience in the United States that, in a machine-shop, for example, three-fourths of the fitters will be foreign-born, while amongst the machinists seventy-five per cent. will be native Americans. We must beware, therefore, of hasty conclusions to the effect that in all branches of manufacture the native is being distanced by the alien.

The juxtaposition of figures portraying the social-

economic status of workmen of different nationalities in the country of their birth and the land of their adoption furnishes lessons of even higher interest. From this we are able to learn the social effect of economic betterment. The Briton, already accustomed to a fair standard of life, now exerts his energies anew and earns nearly one-third more than in his native isle. In fewer instances has he called upon his family to assist him. Much more often does he become the owner of his dwelling, which also has improved in character. With a slightly larger family, the *per capita* expenditure for food has considerably increased, leaving no doubt as to better nourishment. It does not appear that quite the same proportion read books and newspapers or drink liquor as before. In the latter respect a notable reform takes place, the relative expenditure declining from 5 per cent. to 3½ per cent. Savings, as one would naturally expect, also increase.

One curious fact we may note in passing. Under the caption Briton are included English, Scotch, Welsh and Irish. Looking at each division of the same folk separately in their own country, they rank in point of earnings and standard of life first the Scotch, secondly the English, thirdly the Welsh, fourthly the Irish. In America the order is changed: the Scotchman retains the supremacy, but next comes the Irishman, then the Welshman, and finally the Englishman.

The number of returns from Frenchmen, it must be acknowledged, are not sufficient upon which to base hard and fast conclusions. To anticipate a general criticism which may be offered as to the relatively small number of families in comparison with the whole working population, let me say that one must bear in mind two things: In the first place, the industries of which we are writing are not found in many different parts of the same country in Europe. Secondly, it does not need many budgets from the same neighborhood to typify the average standard of living in that locality. The validity of conclusions does not in this case repose so much upon numbers as in many other branches of social inquiry.

It is not very probable that the Frenchman forms an exception to the general rule. The earnings of the husband increase one-half and of the whole family nearly a third. Not half as many fathers sought the assistance of their children as before. Dwellings of a higher class, better nourishment, improved intellectual conditions and far greater sobriety are equally evident. Finally, the Frenchman in the New World thinks less of saving than of self-improvement.

Too few Belgians were found in America to make a reliable comparison of their manner of living in the two continents. Most probably they have done pretty much as their neighbors, the French and the Germans.

A veritable revolution has been wrought in the habits of the German. In a higher degree than any other he becomes the proprietor of his abode. The dwelling itself is doubly as good as it was. Three-fourths of the fathers entirely support their families, and their quota has now been raised to nine-tenths of the total revenue. The fathers earn 125 per cent. and the whole family 84 per cent. more than in the Old World. Rent and clothing, as in the case of the Frenchman and the Briton, are had on less advantageous terms, exceptions which have already engaged our attention. Judging from the figures alone, the nourishment should be over 50 per cent. more than before. More read, but fewer drink and smoke, though the sums of money spent have increased absolutely as well as in proportion. The German, too, seems to utilize his opportunities for saving better than any other nationality, putting aside annually a respectable share of his income.

"Other nationalities," in Table VIII, include a very few Austrians, Belgians, Scandinavians and Swiss (29 in all), but principally Italians, Hungarians, Bohemians and Poles. Comparison of their budgets of incomes and expenses, with those of the Americans, British, French and Germans, shows them to be living on a lower level. Collectively in all crucial tests they do not measure up to the standard. More than half of them receive help from their children or wives to maintain the family. The house is very much

inferior, the *per capita* outlay for food and clothing considerably less, while that for liquor is appreciably greater. Only about one-half spend anything for books and newspapers. The large proportion of wages saved suggests that as yet economy is more highly esteemed than social betterment. Still no one can deny that there has been a vast improvement in comparison with their previous condition of life.

With no other showing should Americans be so well pleased as with the last. The immigration problem centers around this group of nationalities. The industrial Briton has, broadly speaking, been reared under wholesome social conditions. Few Frenchmen come to the United States at all. The German is the quickest of all to adopt American ways. The Scandinavians go most largely to the West to engage in agriculture. The Hungarians, Italians, Bohemians and Poles, who throng our gates, give most concern. Experience has shown that, left to herd together in large cities, they are slow to change their ways. It is therefore with no ordinary satisfaction we note that, drafted off into industry, their advance is much more rapid. Up to the present there seems no ground to fear that such newcomers have wielded a depressing influence. There seems rather reason for congratulation in the fact that instead of their having lowered the American standard of living, the American standard of life has been raising them.

Having bestowed so much attention upon the social results of the inquiry, a briefer space must be allotted to its economic aspects. Speaking generally of these, we may say that the cost of production of a similar unit of pig-iron, merchant iron or steel, is greater in the United States than in the principal foreign countries, that rates of wages are also higher, but that *the labor cost of manufacture is not correspondingly more.*

The production of pig-iron offers an apparent exception to the last statement. Table IX, wherein are contained the average figures for 15 American, 4 English and 2 Belgian Bessemer blast-furnaces, shows a maintenance of the

proportions between average daily wages and labor cost of manufacture. The exception is easily explained by the fact that in this industry day wages, not piece wages, prevail. Familiarity with labor conditions on the two continents teaches that a minimum daily wage is always much higher in America than elsewhere. One may fix the scale at one dollar and twenty-five cents in the United States, to three shillings and sixpence ($0.87) in England, three francs ($0.60) in France, two and a half francs ($0.50) in Belgium, and two marks ($0.50) in Germany. But whenever *quantity* instead of *time* is the unit of payment, the proportion in favor of the New World is not nearly so marked. The manufacture of pig-iron is also an industry where mechanical contrivances cannot be utilized to displace whatever highly paid labor exists and therefore reduce labor cost, in the same way as in the production of merchant iron and steel.

Table IX.

BESSEMER PIG IRON.

Relation between the Earnings of Workmen, the Labor Cost and the Total Cost of Production.

(*Unit, One Ton of* 2240 *Lbs.*)

Country.	Daily Earnings of.				Cost of Product'n—one ton.						Total Cost of Production.
					Labor.		Materials.		General Expenses.		
	Foreman.	Keeper.	Filler.	Average daily wages for the establishment.	Amount.	Per Cent of Total Cost.	Amount.	Per Cent of Total Cost.	Amount.	Per Cent of Total Cost.	
United States...	$2 59	$2 04	$1 35	$1 52	$1 39	9.04	$13 25	86.21	$0 73	4.75	$15 37
Great Britain...	1 58	1 21	94	73	67	6.48	9 18	88.87	48	4.65	10 33
Belgium.....	1 13	1 24	71	65	47	4.35	9 91	91.67	43	3.98	10 81

These figures are an average of 15 American, 4 English and 2 Belgian establishments.

For the purpose of comparing wages with labor cost, and the latter to the total cost of production, I have combined in Table X the figures from four important establishments, making the same product and operating under conditions as similar as possible.

Table X.

BAR IRON MANUFACTURE.

Relation between the Earnings of Workmen, the Labor Cost and the Total Cost of Production.

(*Unit, One Ton of* 2240 *Lbs.*)

Country.	Daily Earnings of			Labor Cost.		Total Cost of Production.
	Heater.	Roller.	Average Daily Wage for the Establishment.	Amount.	Per Cent. of Total Cost.	
United States	$5 05	$4 29	$2 44	$3 43	10.57	$32 44
Great Britain	2 05	2 36	1 25	3 08	12.44	24 85
France	1 67	1 78	89	3 38	14.67	23 04
Belgium	1 68	1 80	64	2 10	8.70	24 13

The wages of such skilled workmen as heaters and rollers are twice as great as in Great Britain, and nearly threefold higher than in France and Belgium. The average wage to all classes of laborers in the establishments is also twice as great as in Great Britain, three times as high as in France, and four times larger than in Belgium. Compare these figures with the labor cost of a similar unit of manufacture and we find quite different proportions. It is only a trifle more than in France, where daily wages are about one-third as high, one-eighth dearer than in Great Britain, with wages only half as large, and fifty-four per cent. greater than in Belgium, where wages are down to one-fourth.

In the manufacture of steel rails the same general law is evident. With the average wage of the establishment 40 per cent. greater than in England, the labor cost is only 10 per cent. more. In comparison with the continent of Europe, wages are 90 per cent. and labor cost but 50 per cent. higher.

TABLE XI.

MANUFACTURE OF STEEL RAILS.

RELATION BETWEEN THE EARNINGS OF WORKMEN, THE LABOR COST AND THE TOTAL COST OF PRODUCTION.

(*Unit, One Ton of* 2240 *Lbs.*)

COUNTRY.	DAILY EARNINGS OF			COST OF PRODUCTION PER TON.								TOTAL COST OF PRODUCTION PER TON.
				Labor.		Materials.		Fuel.		General Expenses.		
	Heater.	Roller.	Average Daily Wage for the Establishment.	Amount.	Proportion.	Amount.	Proportion.	Amount.	Proportion.	Amount.	Proportion.	
United States.	$4 50	$5 25	$2 06	$1 54	6.21	$21 11	85.12	$0 70	2.82	$1 45	5.85	$24 80
Great Britain.	2 66	3 05	1 45	1 37	7.36	16 40	88.20	45	2.42	37	2.02	18 59
Continent of Europe.	1 45	1 55	1 08	1 04	5.33	17 67	90.27	40	2.06	46	2.34	19 57

NOTES.—These figures are taken directly from the books of three large establishments, well equipped and operating under the best conditions.
The terminal dates of the periods to which these figures relate are as follows:
United States, 15 to 27 July, 1889.
Great Britain, April 1 to September 29, 1888.
Continent of Europe, January 13 to April 6, 1889.
The rails manufactured have nearly the same weight per yard.

We must also note that for bar-iron the proportion of the labor cost to the total cost is less in the United States than in Great Britain and France, and for steel rails less than in England.

What inferences are we to draw from the foregoing statistics? Unmistakably this, that higher daily wages in America do not mean a correspondingly enhanced labor